## THORLABS

## 690 nm Laser Diode, 30 mW

#### HL6738MG



#### Description

This 690 nm, 30 mW TO packaged laser diode is a compact light source that outputs a single transverse mode and is suited for a variety of applications such as test and measurement, laser modules, or sensing. It is packaged in a standard Ø5.6 mm TO can package and has a C pin configuration. This laser diode is compatible with our line of laser diode and TEC controllers as well as our selection of collimation solutions and TO can laser diode mounts.

### **Specifications**

Absolute Maximum Ratings <sup>a</sup>				
Specification	Maximum			
Optical Output Power, CW	35 mW			
LD Reverse Voltage	2 V			
PD Reverse Voltage	30 V			
Operating Temperature	-10 °C to 70 °C			
Storage Temperature	-40 °C to 85 °C			



a. Absolute Maximum Rating specifications should never be exceeded. Operating at or beyond these conditions can permanently damage the laser.

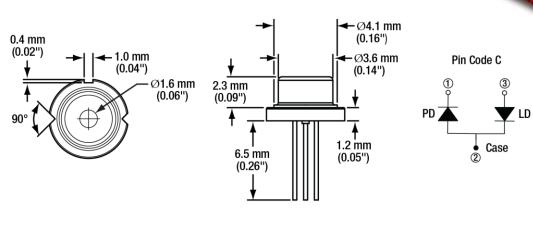
HL6738MG Specifications <sup>a</sup>						
		Symbol	Min	Typical	Max	
Center Wavelength @ Pop		λο	680 nm	690 nm	698 nm	
Optical Output Power, CW		P <sub>op</sub>	-	30 mW	-	
Threshold Current		I <sub>TH</sub>	-	50 mA	70 mA	
Operating Current, CW @ Pop		I <sub>op</sub>	-	85 mA	115 mA	
Operating Voltage @ P <sub>op</sub>		V <sub>op</sub>	-	2.5 V	3.0 V	
Slope Efficiency		η	0.5 mW/mA	0.8 mW/mA	1.0 mW/mA	
Beam Divergence (FWHM) @ P <sub>op</sub>	Parallel	θ//	<b>7</b> °	8.5°	10.5°	
	Perpendicular	θ⊥	17°	19°	23°	
Monitor Current @ P <sub>op</sub>		I <sub>PD</sub>	0.02 mA	0.1 mA	0.45 mA	

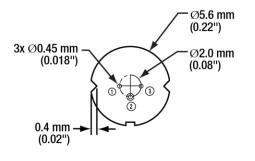
a.  $T_{CASE} = 25$  °C if not specified.

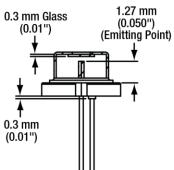
October 6, 2023 TTN091213-S01, Rev A www.thorlabs.com/contact

# THORLABS

### Drawing







October 6, 2023 TTN091213-S01, Rev A www.thorlabs.com/contact